REMARKS

Claims 1-11 are pending in the application.

Claims 1-11 have been amended to more fully conform with U.S. practice.

Claim 7 has been amended to correct the improper multiple dependency in the claim as filed. In this regard, claim 7 now incorporates the subject matter of claim 1 into the claim. New claims 12 and 13 are similar to claim 7, but incorporate the subject matter of claims 2 and 3, respectively, into the claims.

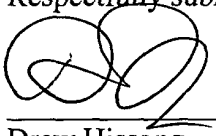
Claim 9 has been amended to recite the steps used in the method. Support for the amendment may be found in Example 10-2 of the specification (pages 59-61).

New claim 14 finds support in the specification at page 8, lines 1-5.

No new matter has been added.

Entry and consideration of this Amendment are respectfully requested.

Respectfully submitted,



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APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

The claims are amended as follows:

1. (Amended) A purified metalloprotease, comprising ~~having an aggrecanase activity, which comprises an amino acid sequence of from the 213th position to the 583rd position of~~ an amino acid sequence represented by amino acids 213-583 of SEQ ID NO:1, or an equivalent of said metalloprotease, wherein said metalloprotease has aggrecanase activity.

2. (Amended) A purified metalloprotease, comprising ~~having an aggrecanase activity, which comprises an amino acid sequence of from the 1st position to the 583rd position of~~ an amino acid sequence represented by amino acids 1-583 of SEQ ID NO:1, or an equivalent of said metalloprotease, wherein said metalloprotease has aggrecanase activity.

3. (Amended) A purified metalloprotease, comprising ~~having an aggrecanase activity,~~ an amino acid sequence selected from the group consisting ~~which consists~~ of an amino acid sequence represented by amino acids 1-950 of SEQ ID NO:1, ~~an amino acid sequence of from the 1st position to the 687th position of the~~an amino acid sequence represented by amino acids 1-687 of SEQ ID NO:1, ~~an amino acid sequence of from the 1st position to the 583rd position of the~~an amino acid sequence represented by amino acids 1-583 of SEQ ID NO:1, ~~an amino acid sequence of from the 213th position to the 950th position of the~~an amino acid sequence represented by amino acids 213-950 of SEQ ID NO:1, ~~an amino acid sequence of from the 213th position to the 687th position of the~~an amino acid sequence represented by amino acids 213-687 of SEQ ID NO:1, ~~or an amino acid sequence of from the 213th position to the 583rd~~

~~position of the~~an amino acid sequence represented by amino acids 213-583 of SEQ ID NO:1, and ~~or~~ an equivalent of said metalloprotease, wherein said metalloprotease has aggrecanase activity.

4. (Amended) An isolated polynucleotide ~~A gene~~ which encodes ~~an amino acid sequence of the~~ a metalloprotease having ~~an~~ aggrecanase activity of ~~described in~~ any one of claims 1 to 3, or ~~an amino acid sequence of~~ an equivalent of said metalloprotease.

5. (Amended) A cloning or expression vector comprising ~~which comprises~~ a polynucleotide of ~~the gene described in~~ claim 4.

6. (Amended) A host cell transformed with the ~~which comprises the~~ vector of ~~described in~~ claim 5.

7. (Amended) A method for producing a metalloprotease having aggrecanase activity comprising an amino acid sequence represented by amino acids 213-583 of SEQ ID NO:1, ~~the metalloprotease having an aggrecanase activity described in any one of claims 1 to 3~~ or an equivalent of said metalloprotease, comprising ~~which comprises~~ a) culturing the host cell of ~~using the host cell described in~~ claim 6 under conditions such that said host cell expresses said metalloprotease or said equivalent, and (b) recovering the metalloprotease or the equivalent so expressed.

8. (Amended) An antibody having binding specificity for ~~against~~ the metalloprotease having ~~an~~ aggrecanase activity of ~~described in~~ any one of claims 1 to 3, or an equivalent of said metalloprotease.

9. (Amended) A method of identifying ~~for screening~~ a compound ~~substance~~ capable of inhibiting ~~an~~ aggrecanase activity of a metalloprotease, comprising:

a) contacting the ~~which comprises allowing the~~ metalloprotease having ~~an~~ aggrecanase activity of ~~described in~~ any one of claims 1 to 3, or an equivalent of said metalloprotease, ~~to contact~~ with a test compound ~~to be tested~~,

b) assaying for aggrecanase activity of the resulting contacted metalloprotease of step (a),

c) comparing results from the assay of step (b) with results of an assay performed using an identical metalloprotease that has not been contacted with the test compound, and

d) determining whether the test compound inhibits aggrecanase activity of the metalloprotease, thereby identifying a compound capable of inhibiting aggrecanase activity of a metalloprotease.

10. (Amended) A pharmaceutical composition for inhibiting degradation of proteoglycans, comprising (a) ~~, which comprises~~ a compound ~~substance~~ capable of inhibiting ~~a~~the metalloprotease, wherein said compound is obtained by the method of claim 9 ~~having an aggrecanase activity described in any one of claims 1 to 3 or an equivalent of said metalloprotease, as an active ingredient~~, and (b) a pharmaceutically acceptable carrier or diluent.

11. (Amended) An isolated polynucleotide comprising a nucleotide sequence selected from the group consisting of ~~A gene represented by~~ SEQ ID NO:24, 25, 26, 27, 28, 29, 30 and~~or~~ 31, or an equivalent of said polynucleotide ~~gene~~.

Claims 12-14 are added as new claims.